EPA Office of Water/Office of Science and Technology Updates
Region 8 Water Quality Standards/NPDES States and Tribes Meeting
Salt Lake City, UT
October 23-25, 2018

Health and Ecological Criteria Division (HECD)

AQUATIC LIFE

Updated Aquatic Life Criteria for Aluminum

In July 2017, the EPA published draft updated aquatic life criteria for aluminum in freshwater. The updated aluminum criteria reflect the latest science, which shows that three water chemistry parameters -- pH, dissolved organic carbon (DOC), and hardness -- can affect the toxicity of aluminum by impacting aquatic species' overall exposure to aluminum. Unlike the fixed criteria recommended in the EPA's 1988 document, this 2017 update takes these three important water quality parameters into account and provides users the flexibility to develop site-specific criteria based on a site's water chemistry. The EPA expects to finalize the updated aluminum criteria in December 2018. See: [HYPERLINK "https://www.epa.gov/wqc/aquatic-life-criteria-aluminum"].

Metals CRADA

In December 2017, the EPA established a 5-year Cooperative Research and Development Agreement (CRADA) with eight metal associations to facilitate collaboration between the EPA and industry technical experts focused on metals. Research under the CRADA will enable EPA to develop a simplified, model and updated metals water quality criteria that protect aquatic life uses based on the latest science. The EPA published a workplan for these CRADA activities in September 2018. See: [HYPERLINK "https://www.epa.gov/wqc/cooperative-research-and-development-agreement-aquatic-life-bioavailability-modeling-metals"]

HUMAN HEALTH

Recreational Criteria and/or Swimming Advisories for Cyanotoxins

The EPA published draft national recommended recreational ambient water quality criteria and/or swimming advisories for the cyanotoxins microcystins and cylindrospermopsin in December 2016. The EPA provided draft recommended concentrations of the cyanotoxins to protect human health while swimming or participating in other recreational activities in and on the water. The EPA is currently revising the document and aims to finalize the recreational criteria/swimming advisories in 2018. See: [HYPERLINK "https://www.epa.gov/wqc/microbial-pathogenrecreational-water-quality-criteria"].

Five-year Review of 2012 Recreational Criteria

In January 2018, the EPA completed a 5-year review of its 2012 Recreational Water Quality Criteria as required by BEACH Act amendments to the Clean Water Act. The review includes a detailed assessment of the state of the science and advances made since 2010 that support the Recreational Water Quality Criteria and enhance its implementation. The EPA identified the

highest priority actions to utilize new scientific information so that improvements to public health protection in recreational waters continue. See: [HYPERLINK "https://www.epa.gov/wqc/five-year-review-2012-recreational-water-quality-criteria"]

NUTRIENTS

Revised Numeric Nutrient Criteria for Lakes and Reservoirs

The EPA is revisiting the 2000-2001 nutrient criteria for lakes and are evaluating the use of stressor-response analyses with recent data from the EPA's National Lakes Assessment to develop recommended criteria ranges that will be protective of aquatic life, recreation, and human health designated uses.

Standards and Health Protection Division (SHPD)

Criteria Implementation Support Documents

Working in collaboration with state partners, SHPD continues to develop implementation materials for cyanotoxins and aluminum. As part of the aluminum work, the EPA is thinking more broadly so that the information can be useful across complex, model-based criteria. We are also reviewing comments on the draft selenium implementation materials and working to finalize those documents.

2018 Report to Congress

On September 6, 2018, the EPA submitted to Congress the *BEACH Act of 2000: 2018 Report to Congress*. This report discusses water quality protection at marine coastal and Great Lakes recreation beaches and relies heavily on the 2017 Five-Year Review of the 2012 Recreational Water Quality Criteria released on May 4, 2018, and the EPA's beach program website.
See: [HYPERLINK "https://www.epa.gov/beach-tech/data-and-reports-about-beach-health"]

Information on WQS Variances

The WQS Variance Building Tool is an implementation support tool designed to help states, territories, and authorized tribes determine whether a WQS variance is an appropriate tool for a particular situation and, if so, help the entity navigate the requirements at 40 CFR Part 131.14 to determine what a legally binding WQS variance would look like and what additional information must be documented and submitted to EPA to support the WQS variance.
General information: [HYPERLINK "https://www.epa.gov/wqs-tech/water-quality-standards-variances"]
Tool: [HYPERLINK "https://www.epa.gov/wqs-tech/water-quality-standards-variance-building-tool"]

Additionally, SHPD holds regular monthly calls with several states to discuss emerging issues and policies related to WQS variances.

WQS Handbook

SHPD continues to make revisions to the WQS Handbook.

See: [HYPERLINK "https://www.epa.gov/wqs-tech/water-quality-standards-handbook"]